

REMARKS/ARGUMENTS

Claims 1-16 are pending in this application. Claims 17-22 have been cancelled and claims 23-28 have been added. In view of this Amendment reexamination and reconsideration are respectfully requested.

The Examiner objected to the drawings. A proposed drawing correction is attached.

The Examiner objected to the abstract and claims 5, 11, 12, 14 and 15. The changes were made as suggested by the Examiner.

The Examiner further rejected claims 1-16, 18 and 19 under 35 U.S.C. § 112, second paragraph. Each of these claims has been amended essentially as suggested by the Examiner.

The Examiner rejected claims 1-22 under 35 U.S.C. § 102(a) as being unpatentable over Noda (6,404,213). Applicant has amended the claims to overcome this rejection. Applicant traverses the Examiner's finding of anticipation and believes the cited art does not teach or suggest the claimed invention as amended.

Noda relates to a probe stylus for inspection of circuits on a semiconductor wafer. Two insulated members in the stylus tip form a single or double needle point. The tip is placed in contact with a pad on the semiconductor. The pad on the semiconductor is a flat conductive area on the surface of the wafer. The flat needle

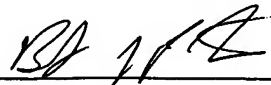
points shown in Noda are for single needle designs that are much more complex to manufacture (Figure 48).

In contrast, the present invention is for testing points that are conductive bumps or conductive balls. Applicants believe this is the first successful method to contact spherical surface without allowing the contact needles to loose contact or slide of the spherical surface or damage the contact surface. The separate contact needles are shown in the preferred embodiment as having a flat tip. The claims have been amended to include this feature of the claimed invention. Basis for this amendment is found in the drawings. The dependent claims further contain the additional feature of the footprint of the needles is nearly or larger than the solder ball diameter. Basis for this amendment can be found on page 10, lines 1-5 and in the drawings. This allows the needles to contact the solder ball with less deformation and to contact the conductive ball at the same time compared to previous techniques.

Applicant believes the claims are in condition for allowance and respectfully requests reconsideration of the amended claims.

Respectfully submitted,

Texas Instruments Incorporated

By 
Bret J. Petersen
Reg. No. 37,417
Tel.: (972) 917-5339

Proposed drawing Correction.

1/3

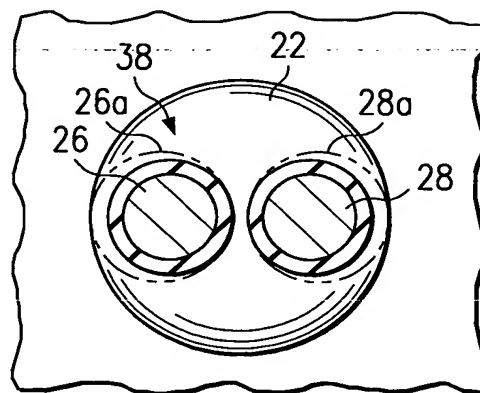
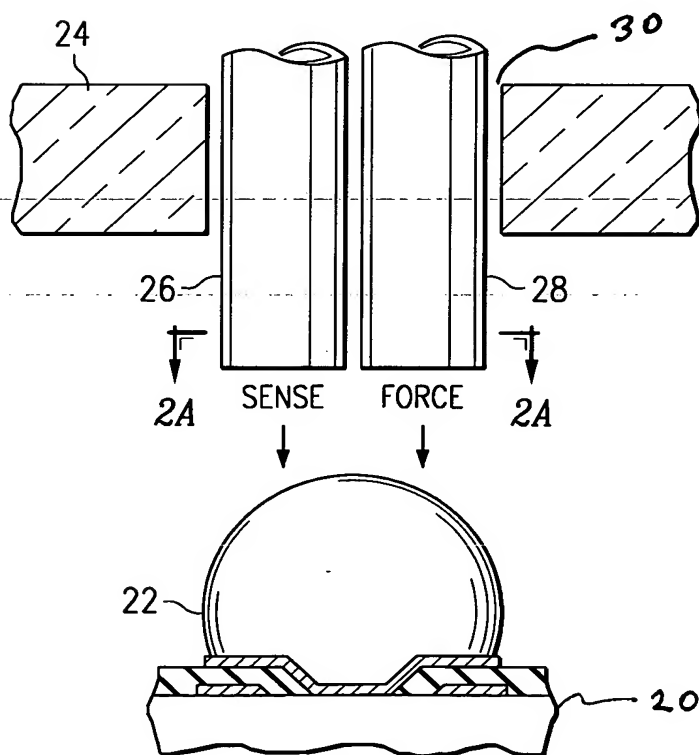
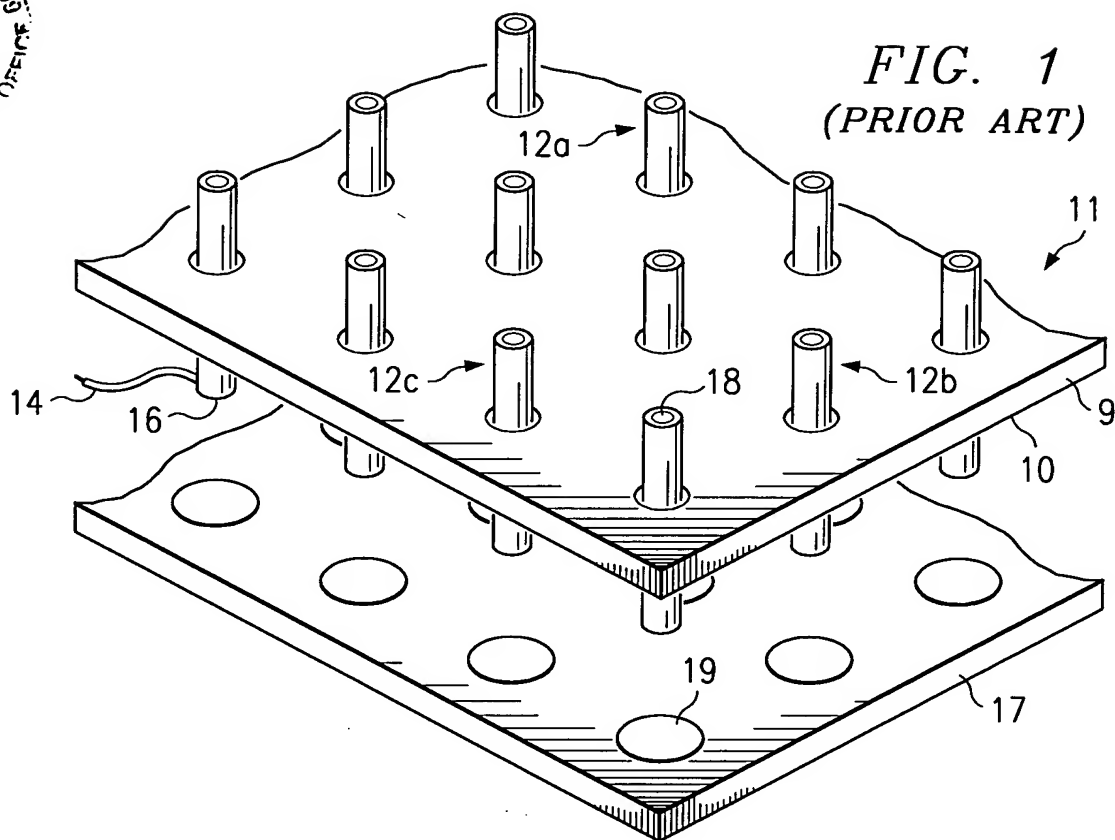


FIG. 2A

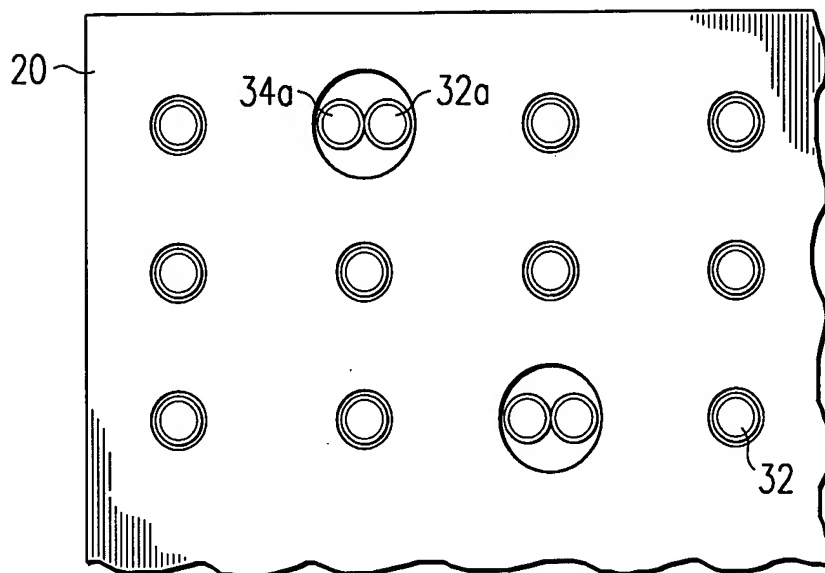


FIG. 3

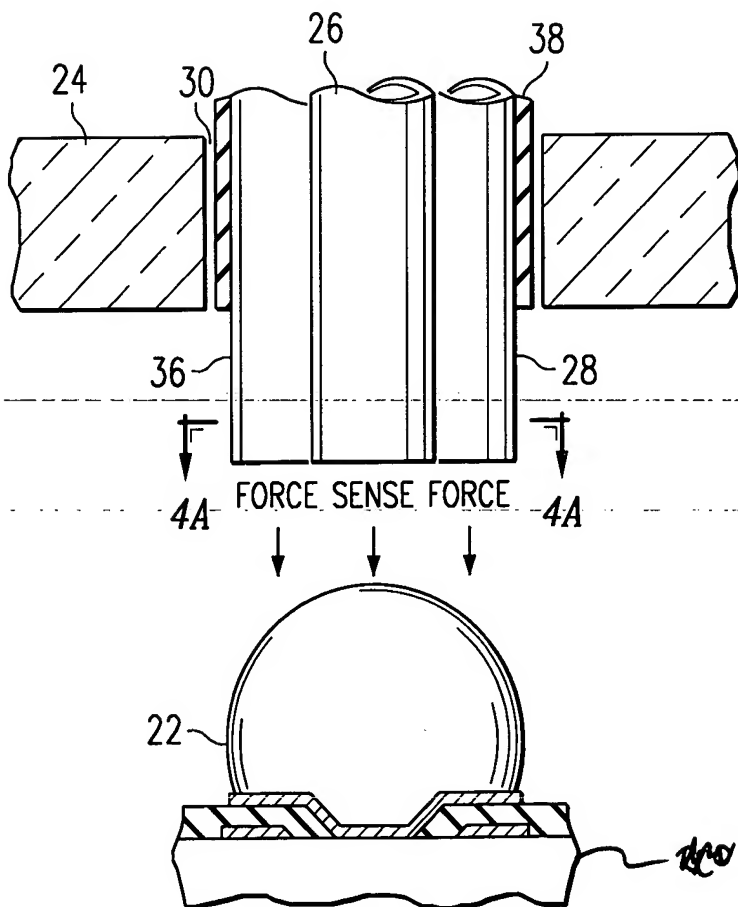


FIG. 4

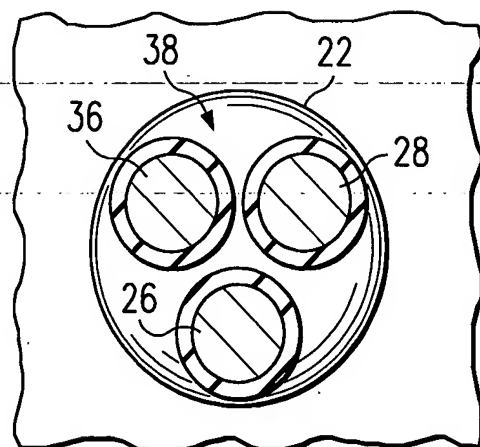


FIG. 4A

